

Date Opened: 19 March 2014

Job #: 764/784
Type / Project: AS350 / AS355 Cargo Basket Hoops
Batch Quantity: ___ Standard; ___ Attachment

Approval: SH08-16
Drawing List: DCL784-3, Rev. 3

Drawing	Description	Task Sheet		Material List	
		Provided	Complete	Provided	Complete
76421, Rev. 0	Hoop	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
76423, Rev. 2	Attachment Hoop	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- 84262, Rev. 1	Basket Handle Provisions				

Note: Stud 76423-05/-07 to be welded at time of basket assembly

Work Order pre-completion Inspection:

Project is on Approval Limitation Record: Y
Document Control List revision level matches (or exceeds) STC: Y
Drawings revision levels match Document Control List: Y
Purchase order or Work order source is recorded for each part/ass'y: Y
Tests and inspections specifically called out on drawings are complete: Y
Release tags associated with all fabricated parts are attached: Y

List all non-conformities raised: _____


Inspector Signature:

19 Mar 15
Date:

3. ½ Hoop Fabrication – 1" hoop

- a. Cut 1" x 0.065 material to 28.0", one end square, one end @ 16 degrees.
- b. Record material PO on attached material list.
- c. De-burr cut ends using a sanding disc on a die-grinder or disc sander.
- d. Remove writing on tubes with acetone and scotch bright.
- e. On the hoop bending fixture, set the following stops:
 - i. Upper tube stop: ??
 - ii. Lower bend stop: ?? *AS350 Disk*
- f. Slide stock tube through bending die up to upper stop. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
- g. Slide shim all the way forward on bender to secure tube in die
- h. Using a long snipe tube, pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
- i. Check tube bend for angle using hoop jig. Adjust stops if required.
- j. Check for:
 - i. hoop height from jig
 - ii. adjust upper stop for height if required
 - iii. length to allow 60 degree cut.
- k. Using hoop jig, mark for 60 degree cut on bottom end. Cut to length.
- l. De-burr cut end using a sanding disc on a die-grinder or disc sander.

4. ½ Hoop Machining – 1" hoop

- a. Start with 1" ½ hoop as stock.
- b. Setup manual milling machine with standard steel vise jaws. Insert hoop into vise flat on bottom of vise, 16 degree side on right. Set XY 0 on far, right edge of hoop (end of hoop). Shift X along hoop 0.893" and set X 0. Shift Y -0.5". Set stop against end of tube.
- c. Drill two places, 5/8" (0.625) holes using 5/8" (#7) centre drill through both sides in accordance with drawing. Apply a few drops of Rapid-Tap cutting oil to each location before drilling.
- d. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
- e. Set tube in vise with 60 degree end on right.
- f. Using ½" coated carbide end mill, mill slot 2.25" deep (edge to edge, 2.0 edge to centre). Apply a bead of Rapid-Tap cutting oil along cut line before milling.
- g. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
- h. Tag in process hoop(s) and place into stock.

5. Joint Preparation

- a. Set 1" hoop in hoop jig. Insert ½" hoop into 1" hoop, against side stop of jig. Mark slot location in 1" hoop onto ½" hoop. Trim ½" hoop with vertical bandsaw if required, and shape to match slot with disc sander.

6. Welding – Lugs

- a. Insert two 76423-05 lugs (medium basket) or 76423-06 lugs (long basket) into holes in 1" hoop. Seat flush with inboard face of tube using a C-clamp or vise. Attach 11" spacing jig with 3/8-24 bolts to lugs.
- b. TIG weld all around both sides of lugs. 2 places.
- c. Record lug and welding rod PO/WO on attached material list.

AD-05

7. Welding – Handle Bushings – 84262-01

- a. Insert 84271-01 bushings into ½" hoop prepared in step 2. above.
- b. TIG weld bushing both sides, 2 bushings per hoop.
- c. Record bushing and welding rod PO/WO on attached material list.

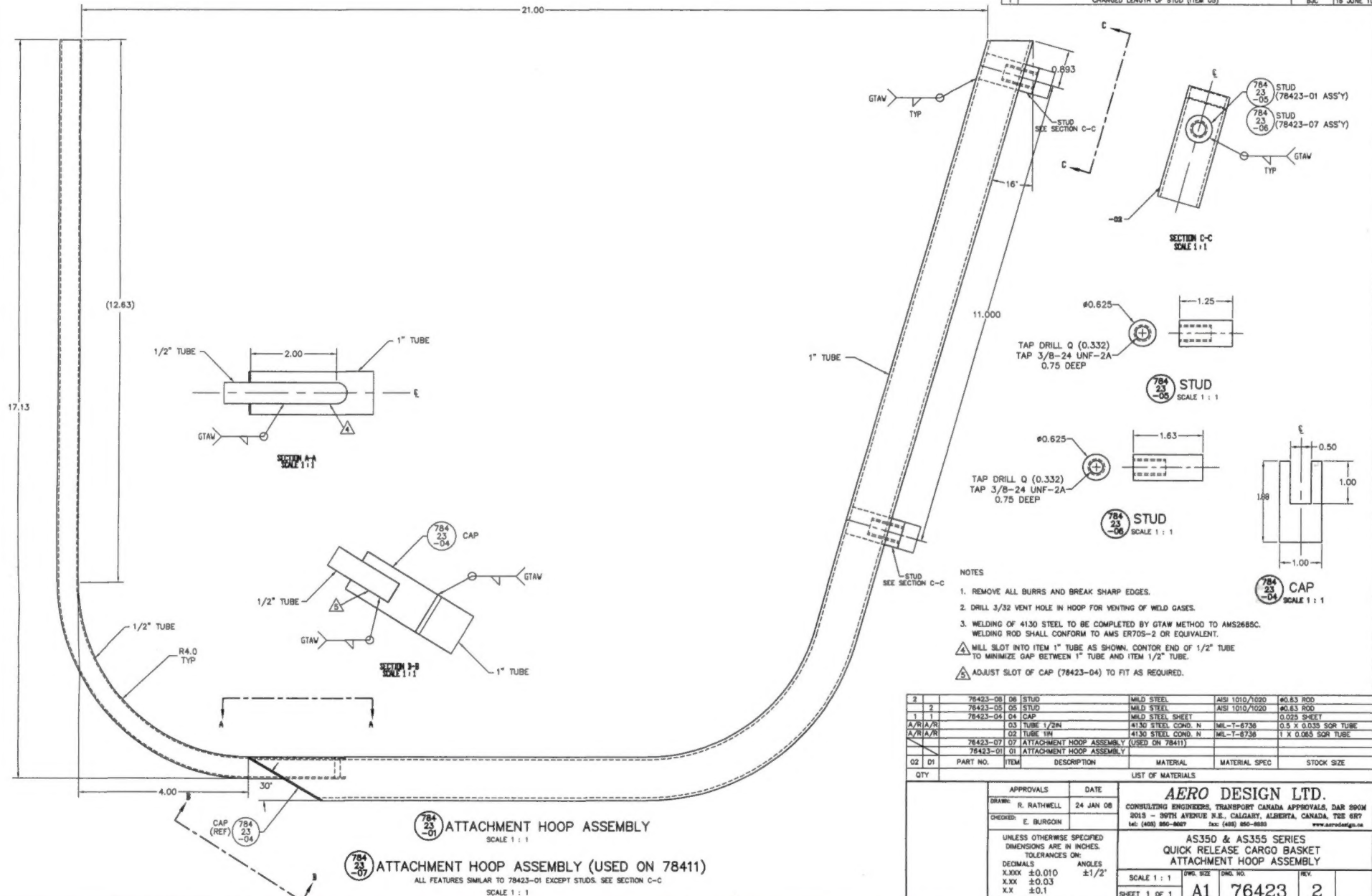
8. Welding – Hoop Assembly

- a. Insert 1" hoop from step 6 and ½" hoop from step 7 into hoop jig. Seat ½" hoop into slot in 1" hoop. AD-05
- b. Tack weld hoops together, minimum 4 places, to hold hoop together to complete welds out of jig.
- c. TIG weld around ½" hoop in slot.
- d. Cap ½" – 1" tube joint with 76423-04 cap. TIG weld around cap.
- e. Record cap and welding rod PO/WO on attached material list.

9. Finishing and Inspection

- a. Run 3/8-24 tap through welded lugs. N/A
- b. Grind inside surfaces flush at lugs and slot in 1" tube. MR
- c. Inspect hoop for conformity to drawing.
- d. Tag complete and inspected hoop(s) and place into stock.

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE	RR	24 JAN 08
1	ADDED 78423-07 ASS'Y AND 78423-06 PART	RR	08 MAR 09
1	CHANGED LENGTH OF STUD (ITEM 05)	BUC	18 JUNE 10



Work Order: 2014-29

Material Tracking Sheet
Eurocopter AS350 / AS355
Hoop Fabrication

2062

Date Opened: 19 MAR 2014

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			76423-01	Hoop - attachment (aft)		
Step 1				<i>1/2 Hoop Fabrication - 1/2" hoop</i>		
	. 1		--	1/2" Tube - hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	14009
Step 2				<i>Machining</i>	<i>None</i>	
Step 3				<i>1/2 Hoop Fabrication - 1" hoop</i>		
	. 1		--	1" tube - hoop	4130 Steel, 1" x 0.065 Sqr. Tube	14009
Step 4				<i>Machining</i>	<i>None</i>	
Step 5				<i>Joint Preparation</i>	<i>None</i>	
				<i>Welding</i>		
* Step 6	. 2		76423-05	Stud	1018 Mild Steel, 5/8" Dia.	
Step 7	. 2	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	13023
Step 8	. 1		76423-04	Cap	1018 Mild Steel, 0.050" Sheet	2019 PC. 9010
	. A/R		--	Welding Rod	ER70S-2	
Step 9				<i>Finishing and Inspection</i>	<i>None</i>	

CARGO BASKET HOOP FABRICATION - 76421

General

The following instructions apply to cargo basket hoop 76421-01 and derivatives that use it as stock. Refer to the following drawings, at the current revision for dimensions and details:

76421, Revision 0 – Hoop

Caution:

1. Always bend 1 hoop start to finish to ensure stops and stock length are correct.

Caution:

2. Always pull with consistent speed through the bend, do not stop during the pull, and do not over-pull once the stop is reached.

Work Order: 2014-29

Complete
(initial or SCA #)

Date Open: 19 MAR 2014

1. Hoop Fabrication

Hoop

- a. Cut $\frac{1}{2}$ " x 0.035 material to 48.0"?, one end square, one end @ 16 degrees.
- b. Record material PO on attached material list.
- c. De-burr cut ends using a sanding disc on a die-grinder or disc sander.
- d. Remove writing on tubes with acetone and scotch bright.
- e. On the hoop bending fixture, set the following stops:
 - i. Upper tube stop: ??
 - ii. Lower bend stop: ??
- f. Slide stock tube through bending die up to upper stop, angled end of tube, long side away. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
- g. Slide shim all the way forward on bender to secure tube in die.
- h. Pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
- i. Check tube bend for angle and height using hoop jig. Adjust stops if required.
- j. On the hoop bending fixture, set the following stops:
 - i. Upper tube stop: ??
 - ii. Lower bend stop: 12mm
- k. Slide stock tube through bending die up to upper stop, square end of tube. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
- l. Slide shim all the way forward on bender to secure tube in die.
- m. Pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
- n. Check tube bend for square and height using hoop jig or carpenters square. Adjust stops if required.
- o. Check for:
 - i. hoop height: 17 $\frac{1}{8}$ " (Outside to outside)
 - ii. hoop width at top: 21" (inside to inside)
 - iii. adjust upper stop for height if required
 - iv. adjust stock length for width if required
 - v. twist – due to pulling bending arm up or down through bend

CARGO BASKET HOOP FABRICATION - 76421

- p. Drill #30 vent holes in bottom centre of hoop in fore/aft direction. De-burr with scotch-brite disc on die-grinder.
- q. Inspect hoops for conformity to drawing.
- r. Tag complete and inspected hoop(s) and place into stock.

Work Order: 2014-29Material Tracking Sheet
Eurocopter AS350 / AS355
Hoop Fabrication

1 of 2

Date Opened: 19 MAR 2014

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 1			76421-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	14009
Step 1			76421-01	Hoop - with handle provisions	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 2				Welding		
	. 2	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	13023
	. A/R		--	Welding Rod	ER70S-2	
Step 3				Inspection	None	
			78622-01	Hoop - attachment (forward)		
Step 1				Fabrication		
	. 1		78621-01	1/2" Tube - hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 2				Welding		
	. 2		69823-02	Lug	1018 Steel, 5/8" Rod	
	. A/R		--	Welding Rod	ER70S-2	
Step 3				Finishing and Inspection	None	



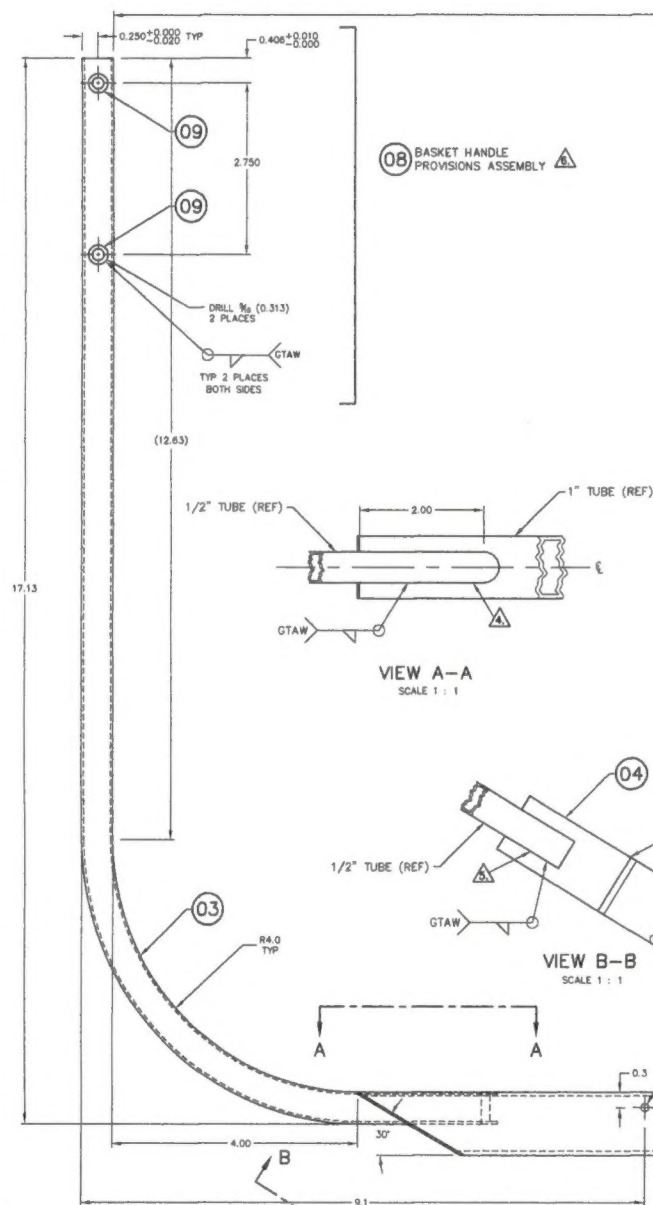
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

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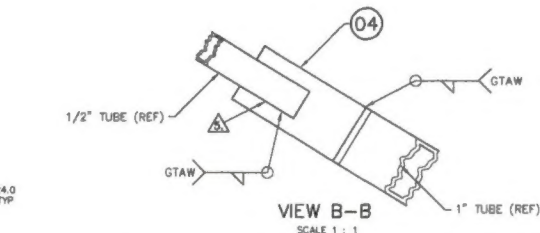
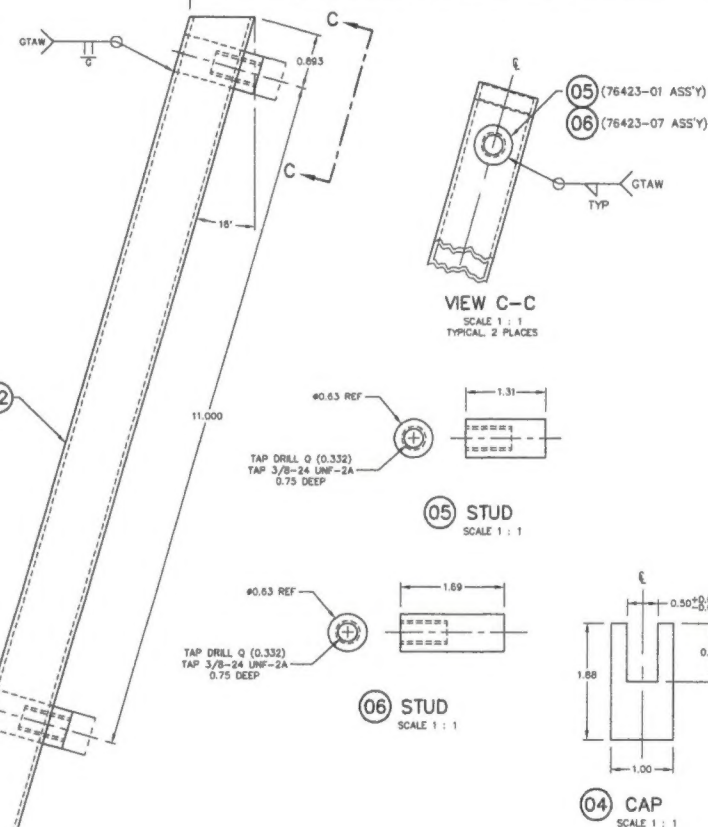
Form 20.F.06

Rev. Original 27 May 2013

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE	RR	24 JAN 08
1	ADDED 76423-07 ASSY AND 76423-06 PART	RR	05 MAR 09
2	CHANGED LENGTH OF STUD (ITEM 05)	BJC	16 JUNE 10
3	TITLE BLOCK UPDATED; FORMAT UPDATED; LENGTH OF STUDS (ITEM 05 & 06) CAP (ITEM 04) UPDATED; HANDLE PROVISIONS (ITEM 08) ADDED	BJC	14/05/2014



1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. DRILL .30 VENT HOLE IN HOOP FOR VENTING OF WELD GASES.
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO AMS E70TS-2 OR EQUIVALENT.
4.  MILL SLOT INTO ITEM 1" TUBE AS SHOWN, CENTER END OF 1/2" TUBE TO MINIMIZE GAP BETWEEN 1" TUBE AND ITEM 1/2" TUBE.
5.  ADJUST SLOT OF CAP (78423-04) TO FIT AS REQUIRED.
6.  BASKET HANDLE PROVISIONS ARE INSTALLED IN ACCORDANCE WITH AERO DESIGN DRAWING 84262. DIMENSIONS AND PARTS SHOWN ARE, FOR REFERENCE ONLY.



⑦ ATTACHMENT HOOP ASSEMBLY
USED ON 78411
ALL FEATURES SIMILAR TO 78423--01 EXCEPT STUDS. SEE SECTION
SCALE 1 : 1

[illegible]